

Appl. No. 09/980,225
Amdt. Dated October 6, 2004
Official Action Dated July 7, 2004

• • R E M A R K S / A R G U M E N T S • •

The Official Action of July 7, 2004 has been thoroughly studied. Accordingly, the present amendment, considered together with the following remarks are believed to be sufficient to place the application into condition for allowance.

By the present amendment, independent claim 1 has been changed to positively recite that the molding material resists blistering when exposed to carbon dioxide refrigerant.

Entry of the changes to independent claim 1 is respectfully requested.

Claims 1, 3, 5 and 8-10 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,914,195 to Hori et al. in view of U.S. Patent No. 4,558,102 to Miyata.

For the reasons set forth below, it is submitted that each of the pending claims is allowable over the prior art of record and therefore, the outstanding prior art rejection of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Hori et al as teaching "...thermoplastic resin compositions having incorporated therein the chlorinated polyethylene and vinyl chloride polymer."

The Examiner states that the compositions of Hori et al. are used in combination with additional additives and are cured as discussed in columns 4-6.

The Examiner states that at column 6, line 8 *et seq.* Hori et al. advises the incorporation of fillers to the chlorinated polyethylene elastomeric composition.

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The Examiner concedes that Hori et al. fails to teach applicants' specific coupling agent.

The Examiner has accordingly relied upon Miyata as disclosing halogen containing rubber composition which have incorporated therein vinyl chloride polymers and chlorinated polyethylene polymers.

The Examiner states that Miyata is "specific as to the incorporation of a hydrotalcite filler and identifies coupling agents as being with epoxy or methacryloxy coupling agents.

In combining the teachings of Hori et al. and Miyata the Examiner takes the position that:

...it would be prima facie obvious to combine the coupling agents and fillers of Miyata with the composites as shown by Hori as requisite the language at column 6 lines 10-25 where hydrotalcite fillers are expressly referenced.

At column 8, lines 3-15 Hori et al. teaches that:

The thermoplastic resin composite of the present invention is formed by combining the chlorinated polyethylene elastomer composition to the hard resin, whereby the heat distortion resistance is excellent, the elastomer composition combined to the hard resin is free from heat distortion, the excellent creep resistance, compression set, low temperature properties (flexibility) and weather resistance of the elastomer composition are maintained, and the excellent effects will last for a long period of time, when it is used as a gasket, a packing a sealant or a sealing material for e.g. automobiles or buildings which are exposed to high temperatures or sunlights, or for electrical refrigerators or freezers which are maintained at low temperatures.

It is important to recognize that the use of the hard resin in electrical refrigerators and freezers referred to by Hori et al. involves the use of Freon as a refrigerant and not carbon dioxide.

Note, there is no mention of a carbon dioxide refrigerant in Hori et al. The state of the art at the time of Hori et al. involved Freon refrigerants.

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There is a significant difference in the use of Freon and a carbon dioxide refrigerant, including chemical differences and operating pressures which effect different sealing material requirements.

Hori et al. is completely silent as to the use of carbon dioxide refrigerants, and cannot be relied upon as appreciating or understanding any of the challenges of using carbon dioxide refrigerants as opposed to conventional Freon.

Miyata is concerned with providing a halogen-containing rubber composition having improved water resistance, chemical resistance and insulating properties without damaging vulcanization speed or the degree of vulcanization. See column 2, lines 5-17.

Miyata discloses silane type coupling agents at column 5, lines 1-4.

However, the coupling agents are used for surface-treatment for a calcination product of a hydrotalcite compound. Note column 4, lines 9-54.

The surface treatment, which involves the use of the silane-type coupling agents listed in the paragraph bridging columns 4 and 5, is used to increase the compatibility of the calcination product with a rubber material as discussed at column 4, lines 9-13

Miyata makes not mention of the compositions being useful in any refrigeration system or in conjunction with any type or refrigerant at all.

Miyata teaches that a suitable coupling agent is an amino silane coupling agent (see column 5, line 3-4).

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In applicants' comparison Example 4 on page 9, it was found that when an amino silane coupling agent was used the composition blistered when exposed to a carbon dioxide refrigerant (see Table 2).

Accordingly, it is clear that Miyata fails to appreciate applicants' invention which is directed to a molding material resists blistering when exposed to carbon dioxide refrigerant.

Applicants' invention could be considered as unexpected over Miyata inasmuch as Miyata allows for the use of amino silane coupling agents.

Therefore, Miyata cannot overcome the distinctions between applicants' claimed invention and Hori et al.

Hence, it is submitted that neither Hori et al. or Miyata, alone or in combination (as proposed by the Examiner) appreciates or otherwise renders applicants' claimed invention obvious as required under 35 U.S.C. §103.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

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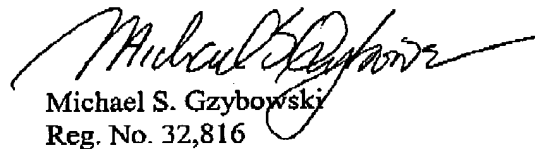
It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art or record and the outstanding rejections of the claims should hence be withdrawn.

Entry of the present amendment and an early allowance of the application are respectfully requested.

If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,


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